

men weakly inrolled), narrowly acute to acute to narrowly rounded at base, (38)50–112 cm long, (10)15–26.5 cm wide, broadest at or above the middle, the margins broadly and shallowly undulate; upper surface glossy to semiglossy, medium green (B & K yellow-green 4/10), lower surface semiglossy; both surfaces drying semiglossy to weakly glossy, dark green to yellow-green; midrib broadly convex to obtusely flat-raised and obscurely sulcate above, higher than broad and bluntly 3–5-ribbed at base, becoming prominently convexly raised toward the apex below; primary lateral veins (13)18–26 per side, departing midrib at 55–75° angle, straight (sometimes weakly arcuate) to the collective vein, prominently convex above and below; tertiary veins weakly visible when fresh below, prominulous when dried; collective vein arising from near the base, weakly sunken above, weakly raised below, drying weakly raised above and below, less prominent than primary lateral veins, 3–10 mm from margin. *Inflorescences* erect to erect-spreading; peduncle 34–48 cm long, ca. 4 mm diam., 3.3–4.2× as long as petiole, drying blackish brown, terete; spathe spreading-recurved, subcoriaceous, green, oblong-elliptic, 13.5–15 cm long, 3 cm wide, acute at apex; stipe 5.5–7 cm long in front, 5.3–6 cm long in back; spadix dark violet-purple, blackish when dried, weakly tapered, ± erect, curved, 8.5–10 cm long, 6–8 mm diam. near base, 4–5 mm diam. near apex; flowers square to rhombic, 1.5–2 mm long, 1.2–1.9 mm wide, the sides ± straight; (5)6–9 flowers visible in principal spiral, (8)9–12 in alternate spiral; tepals matte; lateral tepals 1.3–1.5 mm wide, the inner margins straight to concave, the outer margins 2-sided; pistils weakly exserted; stigma slitlike, ca. 0.3–0.4 mm long; anthers ca. 0.4–0.5 mm long, (0.4)0.5–0.6 mm wide; thecae oblong, not divaricate. *Inflorescence* with spathe withered; spadix 17.5 cm long, ca. 1.2 cm diam.; berries (rehydrated) oblong, apparently rounded at apex, ca. 4.6–5 mm long, 3–3.2 mm diam.; seeds 2 per berry, yellow-brown with darker punctations, oblong-ovoid to somewhat broadly ellipsoid, slightly flattened laterally, 2.9–3.5 mm long, 2–2.3 mm diam., 0.9–1.5 mm thick.

Anthurium bucayanum is endemic to Ecuador, in the provinces of Guayas and Cotopaxi at 510–690 m in lower montane wet forest and premontane moist forest life zones.

This species is characterized by its epiphytic habit, its large very thin-drying, broadly oblong-oblancoolate to elliptic leaf blades which dry mostly dark green and have a collective vein arising from

the base and running close to the margin, and by its prominently stipitate, curved spadix.

Anthurium bucayanum is similar in appearance to *A. campii*, with which it shares general blade shape and size and overall spadix appearance. *Anthurium campii* differs in having much more coriaceous leaf blades and a sessile, green spadix, and occurring at higher elevations (1,200–2,000 m vs. 510–690 m). *Anthurium bucayanum* also resembles *A. sparreorum* (also from lowland coastal Ecuador) in overall appearance, but the latter differs in having thicker leaf blades, a subsessile spadix and perianth which becomes fleshy and conspicuous in fruit.

The species is named for the town of Bucay, near which it was first collected.

ECUADOR. COTOPAXI: 2 km N of Pucuyacu near bridge over Río San Francisco, 690 m, 0°41'S, 79°06'W, *Croat 57082* (MO). GUAYAS: Río Chimbo, Bucay–Río Bamba, Bucay, 510 m, 2°15'S, 79°5'W, *Croat 50912* (MO); 900 m E of junction to El Triunfo at edge of General Elizalde (Bucay), Los Ríos, border of Bolívar and Chimborazo provinces, 510 m, 2°12'S, 79°5'W, *Croat 61597* (AAU, B, BM, CAS, CM, GH, K, MO, NY, QCA, RSA, SEL, US).

Anthurium bushii Croat, sp. nov. TYPE: Ecuador. Morona–Santiago: Cordillera de Cutucú, along trail from Logrono to Yaupi, *Madison et al. 3285* (holotype, SEL 014964). Figure 73.

Planta epiphytica; internodia et cataphylla ignota; petiolus 8 cm longus, 7 mm diam., D-formatus; lamina oblanceolata, ca. 100 cm longa, 18.5 cm lata; nervis primariis lateralis ca. 21 utroque. Pedunculus 36 cm longus, ca. 2 mm diam.; spathe verisimiliter lanceolata, 8 cm longa, ca. 1.3 cm lata, purpurea; spadix oblongo-cylindricus, 12 cm longus, medio ca. 4 mm diam., colore ignoto. Baccae ignotae.

Description based on dried material only. Epiphytic; stem and cataphylls unknown; petioles 8 cm long, 7 mm diam., D-shaped, with medial rib and the margins sharply raised adaxially, probably rounded abaxially; geniculum conspicuously thicker and somewhat darker than petiole, 0.7 cm long; blades subcoriaceous, oblanceolate, narrowly acute at apex, very long-attenuate at base, ca. 100 cm long, 18.5 cm wide, broadest above the middle, the margins moderately undulate; both surfaces matte, grayish green, slightly paler below; midrib ± acutely raised above, slightly paler than surface, broadly convexly raised and brownish below; primary lateral veins ca. 21 per side, departing midrib at 40–50° angle, usually straight, sometimes weakly arcuate to the margin, conspicuously raised above and below, the same color as the midrib; tertiary

veins weakly visible, flat to weakly raised above and below; collective vein absent. *Inflorescences* erect; peduncle 36 cm long, ca. 2 mm diam., 4.5 × as long as petiole, drying the same color as midrib, terete; spathe spreading-ascending, subcoriaceous, purple, drying brown, lanceolate, 8 cm long, ca. 1.3 cm wide, acuminate at apex (the acumen in-rolled, 13 mm long), narrowly acute at base; spadix drying brownish, oblong-cylindroid, slightly curved, 12 cm long, ca. 4 mm diam. midway; flowers square to rhombic, ca. 4–7 flowers visible in principal spiral tepals ± smooth; lateral tepals 4 mm wide, the inner margins broadly convex, the outer margins 2-sided; anthers 0.4–0.5 mm long, 0.6 mm wide; thecae slightly divaricate. *Infructescence* not seen.

Anthurium bushii is known only from the type collection from the Province of Morona-Santiago in Ecuador, where it was collected in the Serranía de Cutucú at 1,300 m in a premontane moist forest life zone.

This species is characterized by its very long, oblong-oblancoate blades which dry grayish green and are very long-tapered in the lower third, and by its purplish spathe and slender, cylindroid spadix which dries brown.

This species is probably most closely related to *A. harlingianum*, which differs in having proportionately broader leaf blades, which are mostly truncate to shallowly cordate at the base and usually dry brown.

The species is named in honor of E. O. (Mike) Bush III, former superintendent of Selby Gardens, who accompanied Michael Madison when the type collection was made. He is now at Bermuda Botanical Gardens.

ECUADOR. MORONA-SANTIAGO: Cordillera de Cutucú, W slopes, Logroño-Yaupí, 1,300 m, 2°46'S, 78°6'W. *Madison et al.* 3285 (SEL).

Anthurium campii Croat, sp. nov. TYPE: Ecuador. Chimborazo: along road between Alausi and El Triunfo, 6.9 km W of Huigra, 2°19'S, 79°0'W, 1,350 m, *Croat 61562* (holotype, MO 3420768-71; isotypes, B, CM, K, NY, QCA, RSA, US). Figures 74–76, 79, 80.

Planta terrestris aut epiphytica; cataphyllum 22–40 cm longum, lanceolatum, persistens intactum vel semi-intactum; petiolus (3)17–23 cm longus, (6)10–15 mm diam., D-formatus, trapeziformis vel C-formatus; lamina late oblanceolata vel oblonga-elliptica, (46)90–145 cm longa, 23–37 cm lata; nervis primariis lateralis 14–40 utroque; nervis collectivis de basi exorientibus. Pedunculus (36)50–85 cm longus; spathe oblonga-lanceolata,

(7)13–20 cm longa, 1.3–2 cm lata; spadix 12–23 cm longa, 5–9 mm diam., viridis. Baccae purpureae.

Terrestrial or epiphytic; stem short, 3.5–5.5 cm diam.; roots dense, upper ones ascending, lower ones descending, whitish to grayish, woolly-pubescent, moderately tapered, ca. 3–12 cm long, 4–5 mm diam.; cataphylls thickly coriaceous, lanceolate, 22–40 cm long, obtuse at apex, medium green, drying medium brown, persisting intact or semi-intact, eventually as coarse linear fibers.

Leaves erect-spreading; petioles (3)17–23 cm long, (6)10–15 mm diam., thicker than broad to D-shaped to trapezoidal or C-shaped, sharply to broadly V-sulcate adaxially with the margins raised, sharply 2–9-ribbed abaxially; geniculum conspicuously thicker than petiole, 1–2.5 cm long; sheath 9–13 cm long; blades coriaceous to subcoriaceous, broadly oblanceolate to oblong-elliptic, rounded to obtuse or sometimes acute at apex, acute at base, (46)90–145 cm long, 23–37 cm wide, broadest above the middle, the margins slightly undulate; upper surface matte to semiglossy, dark green, lower surface semiglossy to glossy, paler; midrib broadly convex at base, becoming flat-raised toward the middle and narrowly convex at the apex above, trapezoidal and 3-ribbed at base, becoming acutely angled and then convex toward the apex below; primary lateral veins 14–40 per side, departing midrib at 50–70° angle, straight or slightly arcuate to the collective vein, convexly raised above, less conspicuously so below; interprimary veins sometimes present, inconspicuous to almost as conspicuous as primary lateral veins; tertiary veins darker than surface and flat below, moderately indistinct; reticulate veins prominulous above and below (or not visible) on drying; collective vein arising from or near the base, equally as prominent as primary lateral veins, 1–13 mm from margin. *Inflorescences* erect; peduncle (36)50–85 cm long, (3)5–6 mm diam., 2.5–3(6) × as long as petiole, terete to bluntly or sharply multiribbed; spathe spreading, with the margins curled under, subcoriaceous, medium green, becoming yellowish, oblong-lanceolate, (7)13–20 cm long, 1.3–2 cm wide, broadest near the base, inserted at 30° angle on peduncle, shortly acuminate at apex, acute at base; spadix medium green, sessile or shortly stipitate, cylindroid to long-tapered, erect to curved, (8)12–23 cm long, 5–9 mm diam. near base, 3–4 mm diam. near apex; flowers rhombic, 1.7–2.6 mm long, 1.1–1.9 mm wide, the sides straight to smoothly sigmoid; 6–13 flowers visible in principal spiral, 5–7 in alternate spiral; tepals matte; lateral tepals 1–1.3 mm wide, the inner margins rounded, erose, the outer mar-